

Impact of Collage on Affect and Self-Efficacy: A Comparison Between LGBTQ+ and Cis-  
Heterosexual Adults

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Albertus Magnus College

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Master of Arts in Art Therapy and Counseling (MAATC)

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**Institutional Review Board (IRB)**  
**Albertus Magnus College**

DATE: March 24, 2022

IRB #: 20220324 - CW

Dear Colleen,

This letter serves as an official approval by the Albertus Magnus College IRB for you to conduct the study on "collage making, self-efficacy and LGBTQ+ people" as described in the IRB application submitted on 3/21/22. Please ensure that the confidentiality of your research participants is properly protected and that you remain within the boundaries you stated in the IRB application. If those boundaries change in relation to the study participants, please notify the IRB as an amendment may be necessary.

Your study is authorized to begin as of the date of this approval letter and is valid for one year, ending on March 24th, 2023.

If you have any questions, please contact Dr. Joshua Abreu, the IRB Administrator, by e-mail at [jabreu1@albertus.edu](mailto:jabreu1@albertus.edu).

Sincerely,

Joshua Abreu, Ph.D.  
IRB Administrator

### Acknowledgements

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Associate Professor of Psychology  
Coordinator of Psychology in the Master of Art in Art Therapy and Counseling Program  
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### **Abstract**

The purpose of the present study was to compare the impact of digital collage about oneself on affect and self-efficacy between individuals in the LGBTQ+ community and cis-gender heterosexual individuals. The COVID-19 pandemic has negative consequences for people's mental health, with a disproportionate impact on LGBTQ+ individuals, creating a need for effective, virtual mental health care, especially for those identifying as LGBTQ+. It was hypothesized that engaging in digital collage would increase positive affect, decrease negative affect, and increase self-efficacy for all participants. It was also hypothesized that there would be a greater impact on affect and self-efficacy for LGBTQ+ individuals in comparison to cis-heterosexual individuals. Participants completed the Positive and Negative Affect Schedule (PANAS) and the General Self-Efficacy Scale (GSES) pre and post artmaking. Significant results supported the first hypothesis, revealing that positive affect increased, negative affect decreased, and self-efficacy increased. The second hypothesis, however, was not supported, indicating that the artmaking was equally effective for LGBTQ+ individuals and cis-heterosexual individuals. The findings of this study suggest that digital collage with a focus on self not only benefits cis-heterosexual individuals, but also the LGBTQ+ community, and supports the effectiveness of short-term digital artmaking in a COVID-19 world.

### **Impacts of Collage on Affect and Self-Efficacy in Adults**

The Coronavirus (COVID-19) pandemic that began in the end of 2019 had a worldwide impact, which not only impacted people's health and lifestyle, but their mental health as well. In assessing mental health in adults, it was found that there was a significant increase in stress, anxiety, and depressive symptoms during the COVID-19 outbreak (Sun et al., 2021).

Additionally, Twenge and Joiner (2020) compared mental distress in adults during COVID-19 to responses from the 2018 National Health Interview Survey (NHIS). It was found that mental distress significantly increased, and in turn increased chances of meeting criteria for diagnosed mental disorders.

Further, since social distancing measures began in 2020, the impact of the COVID-19 pandemic has placed an undue burden on those within the LGBTQ+ community, amplifying already existing disparities in mental health and well-being (Moore et al., 2021; Kneale & Becares, 2021). Peterson et al. (2020) noted that those who identify as sexual minorities have experienced more psychological distress due to COVID-19 than those who identify as heterosexual. This may be due to barriers to social engagement and social connectedness that has been found to be a buffer to minority stress (Scroggs et al., 2021; Denton, 2012).

While LGBTQ+ individuals endure the same stressors as those who identify as cisgender-heterosexual (cisHet), they shoulder additional stress related to marginalization, discrimination, violence, rejection, and unequal rights (Meyer, 2003). Heterosexism and heterosexist events have been found to contribute to adverse mental health in LGBTQ+ individuals (Szymanski, 2005; Kneale & Becares, 2021).

A buffer to minority stressors, such as discrimination and victimization, is identity affirmation (Busby et al., 2020). Busby et al. (2020) examined how aspects such as victimization

and discrimination impacted characteristics of suicide risk found in sexual and gender minorities, and if social connectedness and identity affirmation act as protective factors. It was hypothesized that higher levels of victimization and discrimination would be associated with higher levels of suicide risk characteristics, such as suicidal ideation, depression, and substance abuse. It was also hypothesized that higher levels of identity affirmation and social connectedness would be associated with lower levels of suicide risk characteristics (Busby et al., 2020). The sample consisted of 868 college students who identified as being a sexual and/or gender minority and reported experiencing at least one suicide risk characteristic (Busby et al., 2020). Results of data analysis suggested that social connectedness and identity affirmation acted as moderators to victimization and discrimination, and was associated with lower levels of depression (Busby et al., 2020).

Research supports that increased social interaction may in turn increase self-esteem and well-being. Schwager et al. (2020) examined the impact of social interaction on adolescent students' self-esteem and well-being. It was hypothesized that the more individuals are integrated into social interactions, such as involvement in the community and friendships outside the home, the higher their overall well-being and self-esteem. German secondary school students were asked to complete the German version of the Social Integration Scale. Additionally, they were asked to complete the self-esteem, mental well-being, and physical well-being subscales in the German KINDL-R (a health-related quality of life scale). Results of the above measures indicated that social integration had a positive impact on both well-being and self-esteem.

Research suggests that social connectedness is particularly imperative for members of the LGBTQ+ community, both as a means of identity development and as a buffer to minority stress (Scroggs et al., 2021). At the onset of COVID-19, social distancing guidelines were implemented

throughout the country as an attempt to mitigate the spread of COVID-19. Scroggs et al. (2021) explored the impact of social distancing on the mental health and well-being of LGBTQ+ persons. They analyzed data from 1190 participants, collected before social distancing guidelines and from 705 participants after the guidelines were placed. Results of data analysis revealed that those who participated after social distancing mandates were enacted reported feelings of significantly lower sense of identification within the LGBTQ+ community and a lower sense of minority stress. Scroggs et al. (2021) suggested that this decline in minority stress could be the result of other stress related to COVID-19 taking precedence over all others. It was also noted that participants' sense of LGBTQ+ identity decreased following the implementation of social distancing guidelines (Scroggs et al, 2021).

Another buffer to minority stress is self-efficacy, which is the belief that one can be successful in one's endeavors (Bandura, 1977 as cited in Denton, 2012). Research results suggested that social influence and emotional stress impact one's sense of self-efficacy.

Denton (2012) examined how levels of coping self-efficacy in LGBTQ individuals impacted their feelings of minority stress. It was found that greater coping self-efficacy was associated with lower feelings of minority stress. Specifically, coping self-efficacy was negatively correlated to expectation of rejection, concealment, victimization, and internal homonegativity – all factors specific to minority stress in the LGBTQ+ community.

Coping self-efficacy has also been found to be negatively impacted by expectations of rejection and internalized homonegativity, which stem from perceived prejudice and discrimination (Denton et al., 2014).

Jang et al., (2019) explored the relations between self-compassion, social support, positive identity and career decision-making self-efficacy (CDMSE) in a LGB community. It

was hypothesized that a positive identity would be positively associated with self-efficacy in decision making. In addition, that self-compassion and social support have a positive relationship with positive identity and self-efficacy in decision making. Data analysis indicated a positive relationship between positive identity and self-efficacy in career-decision making. It was also found that social support and self-compassion impacted the relationship between positive identity and self-efficacy in career-decision making.

Self-efficacy has been found to predict self-esteem (Lightsey et al., 2006). Sexual minorities face different challenges to their self-esteem and self-efficacy than their cisgender counterparts (Craig et al., 2012). Further, research has examined that self-esteem may have a relationship to shame felt in the LGBTQ+ community. Greene and Britton (2021) examined the connection between self-forgiveness, minority shame, and self-esteem among LGBTQ individuals. The first hypothesis was that the greater the minority related shame felt, the lower an individuals' self-esteem, and the greater an individuals' feelings of self-forgiveness, the higher their self-esteem. The second hypothesis was that if someone feels more shame, this person will feel less forgiveness. The third hypothesis was that shame and forgiveness would have a direct impact on self-esteem in LGBTQ people. It was proposed as a fourth hypothesis that forgiveness would mediate the relationship between shame and self-esteem among those in the LGBTQ community. All participants (N=657) identified as being in the LGBTQ community. Results of data analysis showed that all four hypotheses were supported, suggesting that decreasing shame and increasing forgiveness can be effective interventions for increasing self-esteem. The researchers asserted that when understanding the experience of shame and self-esteem within LGBTQ+ individuals one must consider the ongoing psychological impact of negotiating a heterosexist society.



Shame, rejection, and overall minority stress are mental health and suicide risk factors for those in the LGBTQ+ community. Mereish et al. (2018) conducted a study to examine the risk factors faced by sexual minorities. It was hypothesized that sexual minority victimization would be connected to an increase in shame, rejection, and higher risk of suicide (Mereish et al., 2018). Surveys to address minority victimization, shame, rejection sensitivity, and suicide risk were given to participants who identified in the LGBTQ+ community. They found minority victimization to be associated with higher prevalence of suicide risk and feelings of shame and rejection.

While the long-term impacts of the COVID-19 pandemic are not yet known, research supports that sexual and gender minorities have experienced higher levels of depression and anxiety in comparison to cis-heterosexual identified persons (Moore et al., 2021). They suggested that further research should be conducted to examine how COVID-19 has impacted sexual and gender minority individuals, both in the short and long-term.

A suggested treatment for addressing the mental health issues faced by the LGBTQ+ community is art therapy. Art therapy is a form of psychotherapy that is based on the belief that all people have the capacity for creative expression. Art making is in and of itself therapeutic and life enhancing (Malchiodi, 2003). It can be used to address a multitude of issues, but research over time suggests that art therapy is effective as an intervention to improve self-esteem (Alavinezhad et al., 2014; Roghanchi et al., 2013).

Research shows that one of the benefits of using art therapy is that it can increase self-esteem through the positive experience of creative self-expression. Alavinezhad et al., (2014) examined the use of art therapy as an intervention to increase self-esteem and decrease anger in children through self-expression. The experimental group underwent a 10-week intervention,

consisting of a 2-hour art therapy session each week. Art interventions included drawing and play-acting, using various prompts designed to increase self-esteem and self-expression. Results suggested that the art therapy intervention effectively reduced anger and increased self-esteem. These results indicated that creative self-expression may be an effective tool to increase self-esteem.

Art therapy can also be utilized in addition to other modalities to increase self-esteem as well as resiliency. Roghanchi et al. (2013) examined the impact of combining rational emotive behavior therapy (REBT) and art therapy to strengthen self-esteem and resilience. The 24 college-aged participants were divided randomly into two groups; experimental and control. Participants in the control group did not receive therapy. Data analysis showed that for the art therapy groups, self-esteem scores increased from pretest to posttest, indicating that the hypothesis was supported. The difference between groups was statistically significant. Those who participated in art therapy and REBT had a greater increase in self-esteem than those who did not participate in therapy.

As mentioned previously, those in the LGBTQ+ community are at a greater risk for mental health issues due to various aspects of minority stress. Art therapy is one modality which can widely benefit the community by offering an outlet for positive self-expression and reflection on identity. Huerta (2018) explored the integration of art therapy, and other expressive therapies, in treatment with LGBTQ+ identified persons. Review of the literature suggested that creative therapies allowed those in the LGBTQ+ community to explore self-awareness, self-empowerment, grief of fallouts due to minority stress, acceptance, and pride, which were found to improve sense of self (Huerta, 2018).

Results of research has shown that art therapy can also help LGBTQ+ individuals with exploring the coming out process. Coming out has been described as a particularly emotional time, including potential feelings of alienation, confusion, and detachment as the person's sense of self shifts (Pelton-Sweet & Sherry, 2008). The ability to explore a sense of self, especially in the coming out and being out process, is particularly important in art therapy with the LGBTQ+ community (Pelton-Sweet & Sherry, 2008).

One specific art therapy technique that has been found useful with the LGBTQ+ community is using collage to explore sense of self (Pelton-Sweet & Sherry, 2008). Esterline (2021) used collage as a way to explore sense of identity in the LGBTQ+ community. Esterline specifically used their own experiences as a transgender individual to test out their suggested battery of directives. The first directive was to create a collage to represent interactions with others. The second was to create a collage to represent thoughts and feelings from those interactions. The third was to create a collage to represent interactions with close relationships; and, finally, the fourth was to create a collage to represent feelings of identity. Through art analysis and exploration of literature, Esterline (2021) suggested that collage may be a beneficial technique to use with the LGBTQ+ population and should be further researched.

The process of art therapy can provide a sense of being witnessed and can in turn work to increase positive affect and self-perception. Focusing on the LGBTQ population, Zascirinskis (2019) explored the impact of art on affect, conducting a study focusing on mood change after drawing a road to represent participants coming out story. The researcher hypothesized that participants positive affect would increase, and negative affects would decrease, after completing the DAR in relation to their coming out experience. It was also hypothesized that symbols found in the DAR artwork would represent perceived support from others throughout the participants'

coming out journeys. It was found that for those who identified as being “more out,” there was a positive change in affect after completing the DAR. Additionally, when examining the artwork of the participants with the greatest increase in affect, there were similar themes. The artwork was more cohesive, had a clearer narrative, and had symbols commonly associated with LGBTQ culture. About half of the overall participants included symbology to represent support from others. (Zascirinskis, 2019). The researcher suggested that the act of witnessing one’s coming out story through the art process can positively impact affect for those who experience themselves as “more out” or for those who want to be seen as “out.”

It is known that material choice is a crucial consideration in art therapy, especially when working with clients who experience negative affect and low self-efficacy. The media chosen for artistic expression in art therapy can be just as important as the process and product (Dean, 2016). Dean noted that the use of art materials encourages brain activity, visual processing, emotional intelligence, problem solving, and self-regulation. Further, it has been theorized that different media elicit different reactions among clients (Lusebrink, 2010). Visual expression is theorized to have three levels of processing called the Expressive Therapies Continuum (ETC). The levels of processing, according to the ETC, are kinesthetic/sensory, perceptual/affective, and cognitive/symbolic. The kinesthetic/sensory level is activated when art making is loose and engages the senses. The next level, perceptual/affective, is activated when art making is structured and engages expression of mood. The final level, cognitive/symbolic, is activated when art making involves conceptual formation and meaning. It is suggested that the ETC can be utilized by art therapists to engage clients in different aspects of therapeutic processing. For example, tapping into perceptual/affective when a client struggles with social-emotional

intelligence (Lusebrink, 2010). Collage, for example, incorporates various levels of the ETC and is a more nonthreatening technique as opposed to drawing, painting, or sculpting.

Collage does not require much formal artistic skill and can foster a sense of capability in the artist and allow clients to feel less exposed in the art process (Raffaelli & Hartzell, 2016). Collage has been connected to primitive art, folkloric art, and more modern art movements such as dada, cubism, and surrealism (Lamy, 1986). Collage can be broadly described as an image made by compiling different materials together attached to a base. The materials typically used in collage range from photographs, newspaper clippings, magazine clippings, paper, fabrics, tickets, wrappers, sand, shells, cereal, rocks, digital images, altered books, and other various found objects (Lamy, 1986; Stallings, 2016).

Chilton and Scotti (2014) noted that collage integrates various skills simultaneously (such as layering, composition, and connecting subjects), encouraged self-identity development, and allowed for hands-on exploration. In their study, collage was defined as art pieces created by compiling images from magazines and papers that are cut, altered, and arranged to a support, such as another piece of paper or cardboard (Chilton & Scotti, 2014). The purpose of the study was to investigate the properties and implications of using collage in arts-based research. Participants created a collage every week with the freedom to choose collage materials, and wrote ideas and intentions about each piece. After the 4 weeks, the researchers compared and discussed their art and accompanied writings. Results indicated that the collage process enabled the participants to feel an increase in identity development and a stronger sense of self.

Stallings (2016) highlighted that collage is utilized often, because this process simultaneously allows for creative choice and provides a sense of structure. The research additionally reinforced that use of preexisting imagery can be less threatening to participants

than having to draw or paint from imagination; there is less pressure to have artistic skill. In some cases, therapists choose to provide pre-cut materials whereas in others patients are given the ability to choose materials from magazines and the like. The above researcher also noted that the additional positive outcomes of collage may have benefited in enhancing communication, improve decision-making skills, and coping with grief (Stallings, 2016).

With the use of technology continuously on the rise, especially during the COVID-19 pandemic, art therapists have to consider the use of computers in their practice. Diggs et al. (2015) highlights that the use of technology allows participants to correct mistakes and make changes easier than physical artmaking. It also allows for the potential to create multiple outcomes rather than one. They noted that research has shown that online interventions for art therapy can be effective, and worth exploring. Digital art in particular can reduce art-making anxieties and can be done using a variety of online programs

The present study explored the benefits of digital collage in improving self-efficacy and affect in LGBTQ+ and cis-heterosexual adult participants. It was hypothesized that the use of digital collage as a therapeutic technique with adults would increase positive affect and decrease negative affect, and increase feelings of self-efficacy. It was also hypothesized that there would be a greater impact on self-efficacy and affect in LGBTQ+ individuals than cis-heterosexual individuals, due to disparate mental health impact of the pandemic reported in the literature.

## **Method**

### **Participants**

Participants were recruited through convenience sampling, through the posting of flyers (Appendix A) in coffee shops, bookstores, a New England College Campus as well as posting on social media, and through word of mouth.

Participants were 42 adults (LGBTQ+  $n=21$ ; Cis-heterosexual  $n=21$ ) aged 18-64 ( $M=35.55$ ,  $SD=13.10$ ). With respect to the LGBTQ+ participants, the majority identified as bisexual ( $n=11$ ), followed by lesbian/gay ( $n=3$ ), pansexual ( $n=3$ ), asexual ( $n=2$ ), demisexual ( $n=1$ ), and questioning ( $n=1$ ). In addition, the majority across groups identified as cisgender, with 0 identifying as transgender, 2 identifying that they were unsure if they are transgender, 4 identifying as non-binary/genderqueer, and 1 identifying as genderfluid. The majority of participants across groups identified as Caucasian ( $n=35$ ), followed by Caucasian/Native American ( $n=2$ ), Hispanic/Latinx ( $n=2$ ), African American/Black ( $n=1$ ), Asian/Pacific Islander ( $n=1$ ), and prefer not to respond ( $n=1$ ). Participants were also predominately Non-Hispanic/Latinx ( $n=36$ ).

When reviewing each group respectively, Group 1 (LGBTQ+ individuals) ranged in ages from 18 to 64 ( $M=31.43$ ). The majority of participants in Group 1 identified as female ( $n=14$ ). Additionally, the majority of participants in Group 1 were Caucasian ( $n=18$ ), followed by Caucasian/Native American ( $n=2$ ), and Asian/Pacific Islander ( $n=1$ ). Participants in Group 1 were also predominately Non-Hispanic/Latinx ( $n=19$ ). Group 2 (Cis-Heterosexual individuals) had ages ranging from 22 to 64 ( $M=35.67$ ). The majority of participants in Group 2 identified as female ( $n=15$ ). Additionally, the majority of participants in Group 2 were Caucasian ( $n=17$ ), followed by African American/Black ( $n=1$ ) and prefer not to respond ( $n=1$ ). Participants in Group 2 were also predominately Non-Hispanic/Latinx ( $n=17$ ).

## **Measures**

### ***Positive and Negative Affect Schedule (PANAS)***

The Positive and Negative Affect Schedule (PANAS) (Appendix B) is a 20 item self-inventory scale designed to measure a person's affect for a certain amount of time determined by

the researcher (Watson et al., 1988). The researcher can choose to evaluate a person's affect in the present moment, the entire day, the past few days, the past week, the past few weeks, the past year, or in general. For the purposes of this study, participants were asked to evaluate their affect in the present moment. The scale is comprised of 10 positive affect items and 10 negative affect items, all scored on a 5-point Likert-type scale ranging from 1 (very slight or not at all) to 5 (extreme). The scores given for positive affect are averaged, as well as the scores given for negative affect, with scores ranging from 10-50. The higher the score, the stronger the affect. When developing the PANAS, it was found to have high reliability, with a Cronbach alpha of .86 to .90 for positive affect and .84 to .87 for negative affect (Watson et al., 1988). The scale was also found to have good item validity- ranging from 87.4% to 96.1% common variance.

### ***General Self-Efficacy Scale (GSES)***

The General Self-Efficacy Scale (GSES) (Appendix C) is a 10 item self-inventory scale designed to measure self-efficacy (Schwarzer & Jerusalem, 1995). The items are scored on a 4-point Likert-type scale ranging from 1 (not at all true) to 4 (exactly true). The items are summed, ranging from 10 to 40, with higher scores signifying higher self-efficacy. In development of the GSES, the measure was found to have good internal reliability, ranging from .76 to .90. The scale was also found to correlate with positive emotion, optimism, and work satisfaction (Schwarzer & Jerusalem, 1995).

### **Materials**

Materials required for participation included a digital device (computer, tablet, smartphone) that was compatible with GoogleDocs™ with a stable internet connection. A document containing preselected images (20 pictures of people, 20 pictures of animals, 20 pictures of landscapes, 20 pictures of food, 20 pictures of patterns, and 20 pictures of colors)



(Appendix D) was shared with participants. Guidelines for content of images were informed by the Magazine Photo Collage Multicultural Assessment by Landgarten (1993). Collages were created by using basic image editing commands in GoogleDocs™.

### **Procedure**

Participants signed up for an individual study session through email. All sessions were conducted over Zoom, which adheres to HIPPA compliance. Once participants chose a day and time, the researcher immediately sent the participants a Zoom link for their session.

At the beginning of each session, the researcher emailed every participant a password protected fillable PDF consent form (Appendix E). The researcher read through the informed consent form with each participant and then asked the participant to sign it. After the participants signed the form, they emailed it back to the researcher. The researcher then shared several links in the Zoom chat to documents within individual GoogleDoc™ folders, all coded with participant ID numbers, to be used in the study. In addition, an institutional Google™ account was used to create the GoogleForm™ versions of the Pre-PANAS, Pre-GSES, Post-PANAS, and Post-GSES, which allowed for deidentification of email addresses of participants to ensure confidentiality. Once the consent forms were received by the researcher, the first link sent to the participant was a link to the GoogleForm™ version of the Pre-PANAS. Once the Pre-PANAS was completed, the researcher sent the participant a link to the GoogleForm™ version of the Pre-GSES. Participants were then shared links to a document of images to choose from, a Google doc for art making, the demographics form (Appendix F), and the debriefing form (Appendix G). Participants were told not to fill out a form until specifically asked to do so. Once all pre-measures were completed, brief instructions were provided on how to create a digital collage

using GoogleDocs™, followed by instructions for the directive for art making. The script for these instructions were as follows:

“Before we begin the art making, I would like to walk you through a quick demonstration of how to make a digital collage on GoogleDocs™. I am going to share my screen and show you how to select and use a digital image. First, I am opening the document titled ‘Artwork’ and the document titled ‘Digital Collage Image Bank.’ In the ‘Digital Collage Image Bank’ once you find an image that resonates with you, select and ‘copy’ it. You may then open your document for your artwork and ‘paste’ the image. Once the image shows up, there will be a pop-up directly below the images with options of how to place the image on the page. Click the third icon from the left titled ‘Break text.’ This will allow you to move the image freely on the page. To the right of the ‘Break text’ icon, there are options for ‘Behind text’ or ‘In front of text’. These icons will allow you to layer images as you would like. If you would like to crop an image, you may click the image and find the ‘Crop image’ icon on the menu bar at the top, third icon from the right. You may then drag the point on the image as you would like. Once it is cropped to your liking, you may click anywhere else on the page. If you have any further formatting questions while creating your art, please let me know. The prompt for this collage is to use at least three overlapping images to create a self-symbol. To do so, you may choose any images that represents you. You will have up 20 minutes to complete your artwork and you may take as much of this time as needed. Once you are finished, you may download your artwork if you would like to save a copy for yourself. Are there any questions at this time?”

Up to twenty minutes was allocated for the art making process. Participants were given a 10, 5, and 2-minute warning until time was up. When participants were finished with the collage, they were asked to export their art as a protected PDF file to save for themselves. The participants were then sent links to the GoogleForm™ versions of the Post-PANAS and Post-GSES. After the post measures were completed, the participant was asked to fill out the demographics form. Once the demographics form was completed, the researcher emailed and read through the image release form to the participants, which was provided as a password protected PDF fillable form (Appendix H). After participants completed the image release form, they emailed it to the researcher. The researcher then read through the debriefing form and asked if the participant had any questions. Once all questions were addressed, the participants were thanked for their participation.

Following each session, the researcher downloaded the participant's artwork as a PDF and saved the artworks on a portable flash drive, titled with the participant's code number. Following, the, GoogleDoc™ file was deleted for security purposes. All individual artworks were observed and analyzed for patterns by the researcher and two additional art therapy observers. The use of other observers provided triangulation of the interpretations of the artwork, allowing for there to be more objective perspective on themes and imagery. Each observer was separately asked to answer 5 questions (Appendix I) for each digital collage. Observations were compared and are addressed further in the discussion.

## **Results**

A paired samples *t*-test was conducted to evaluate change in pre and post PANAS and GSES scores for all participants. It was found that there was a significant increase in positive affect  $t(41)= 6.622, p <0.001$  and a significant decrease in negative affect  $t(41)= 4.812, p <0.001$

following the digital art making. There was also a significant increase in self-efficacy  $t(41)=2.508$ ,  $p=0.016$ .

An independent samples  $t$ -test was also conducted to evaluate if there was a differential impact of the art making between the LGBTQ+ group and the cis-heterosexual group. In comparing change between groups, no significance difference was found for positive affect  $t(40)=-0.432$ ,  $p=0.602$ , negative affect  $t(40)=-0.610$ ,  $p=0.875$ , or self-efficacy  $t(40)=-1.017$ ,  $p=0.635$ .

### **Discussion**

This mixed-methods study compared the impacts on digital collage making between individuals who identify as LGBTQ+ and those who identify as cis-gender heterosexual. Based on previous research, it was predicted that engaging in digital collage would increase positive affect, decrease negative affect, and increase self-efficacy for all participants. It was also hypothesized that there would be a significant difference between groups, with LGBTQ+ individuals experiencing a greater increase in positive affect and self-efficacy, and greater decrease in negative affect. Findings from this study support the first hypothesis, indicating that there was a significant impact across groups on the experience of positive and negative affect and self-efficacy, following the creation of a digital collage that represents oneself. Results are consistent with the literature, which indicates that collage may allow for an outlet to explore sense of self and can have a positive change in affect (increase in positive affect and decrease in negative affect), and that the positive expression of self can positively impact self-efficacy (Jang et al., 2019; Huerta, 2018; Pelton-Sweet & Sherry, 2008; Chilton & Scotti, 2014).

In contrast, the second hypothesis was not supported. No significant difference between groups was found for negative affect, positive affect, or self-efficacy. It was predicted that

LGBTQ+ participants would have a greater impact than cis-heterosexual individuals due to the disproportionate effects from COVID-19 (Moore et al., 2021; Kneale & Becares, 2021; Peterson et al., 2020; Scroggs et al., 2021). It was also predicted that creating a self-symbol would be more impactful for those who identify as LGBTQ+ because of the importance of identity affirmation for these individuals and community connection. Research has suggested that identity affirmation may act as a moderator to the emotional impact of victimization, discrimination, and depression within the LGBTQ+ community (Busby et al., 2020). In a COVID-19 world, when minority stressors are even more prevalent, buffers to the mental health impacts of discrimination, such as identity affirmation, are crucial (Busby et al., 2020; Meyer, 2003). However, the findings in this current study support that identity affirmation is not only important for the LGBTQ+ community, but also for those who are cis-heterosexual. This suggests that the digital collage directive in this study is an effective intervention for increasing positive affect, decreasing negative affect, and increasing self-efficacy for all gender and sexuality groups.

Aspects typically observed in artworks by mental health professionals include line, color, shape, and form within a composition (Penzes et al., 2018). The Formal Elements Art Therapy Scale (FEATS) is a measurement system commonly used by art therapists to evaluate these elements (Gantt & Anderson, 2009). While the FEATS was originally directed towards drawings and paintings, Gantt and Anderson (2009) noted that there is benefit in emphasizing global characteristics and in examining how people make the art, rather than only what is being made. Although this current study is not utilizing the FEATS as a measurement system, the FEATS serves as a valuable guideline in art observation (Gantt & Anderson, 2009).

One element examined in the FEATS is space, or how much space is taken up by the composition (Gantt & Anderson, 2009). All three art observers noted that the majority of participants in this study had full compositions ( $n=36$ ), between 75% and 100% of space covered. Participants who created sparse compositions often utilized a linear presentation, as seen in a piece created by a 35-year-old, Caucasian, female identified, cis-heterosexual individual (Figure 1). Hammer (1958) suggested that size of imagery on the page may be representative of the artist's self-esteem. Results of studies showed that smaller compositions tend to be associated with feelings of inferiority, insecurity, withdrawal, or depression (Hammer, 1958; Koppitz, 1968). Therefore, the sparse compositions may indicate lower self-esteem in the corresponding participants. In addition, linear imagery suggests a more controlled and defended presentation.

Another element examined in the FEATS is rotation, which specifically looks at vertical vs horizontal composition (Gantt & Anderson, 2009). Observations of the participants' artworks reveal that 59.5% ( $n=25$ ) of participants used a vertical page orientation, while 35.7% ( $n=15$ ) of participants used a horizontal page orientation. Additionally, 4.8% ( $n=2$ ) of participants used a vertical page orientation however the composition itself was horizontal. An example of this appears in Figure 2, created by a 62-year-old, Caucasian, female identified individual who identifies as a lesbian. Ambivalence in rotation may indicate a concurrent ambivalence towards digital artmaking, given that changing the orientation of the page required page editing. Additionally, clustering the images towards the top may suggest a focus on thoughts and emotions, rather than a more rounded view of self.

Additional qualities examined in art assessment are prominence of color and color fit. These aspects reference how color is applied in the composition and how realistic the color is to

the subject (Gantt & Anderson, 2009). All three art observers agreed that 88.1% ( $n=37$ ) of participants created colorful compositions, with the remainder of participants using predominately darker tones. Colorful compositions can suggest a wide range of emotions and openness to expressing those emotions in their artwork. Conversely, those who have darker compositions may be focused on a specific emotion or be guarded about the directive. Some of the compositions in this study had color schemes akin to colors of pride flags. For example, Figure 3 was created by a 40-year-old, Caucasian, non-binary individual who identifies as asexual. The composition included purples, blues, blacks, whites, and pops of yellow, which appear in both the non-binary and asexual flags (Solomon, 2021). Additionally, 80.9% ( $n=34$ ) of participants had appropriate color fit, with the remaining participants utilizing unrealistic color editing and abstracting the images. An example of this is seen in a composition created by a 25-year-old, Caucasian, female identified individual who identifies as bisexual (Figure 4). Gantt and Anderson (2009) stress, however, that low color fit does not have to be negative and can be simply an expressive use of color.

Carl Jung (1964) described symbols as words or images that have deeper meaning than the obvious or typical meaning associated with the word or symbol. Participants were asked to use collage to create a self-symbol, in the hopes that the images chosen would have personal meaning to the participant. When examining the images used in the artworks, it was found that all participants included natural imagery. Jung (1964) noted that unconscious symbols, in part, connect humans back to nature in a way that has not been utilized by many cultures since primitive times, and suggested that the unconscious is constantly attaching deeper meaning and value to natural elements.

Hinds and Sparks (2011) described natural imagery and environments to be associated with having a higher level of inner peace, vitality, and feelings of having a meaningful existence. Specifically, images of waterscapes were related to these more positive emotions. In participant artwork, 50% ( $n=21$ ) of participants had images of waterscapes. However, it was also found that certain natural elements, such as mountains, forests, and woodlands were associated with feelings of isolation and apprehension. Within participant artwork, 4.2% ( $n=10$ ) of participants included images of mountains and 50% ( $n=21$ ) included images of forests. For example, Figure 5, created by a 26-year-old, Hispanic/Latina, female identified, cis-heterosexual individual, comprises of numerous depictions of natural imagery.

Most participants also utilized depictions of animals; specifically, 17% ( $n=7$ ) of participants included the image of a dog, 26% ( $n=11$ ) included the image of a butterfly, and 19% ( $n=8$ ) included the image of a cat. Butterflies appear as a prominent symbol in many ancient cultures, such as Ancient Egypt and Ancient Greece, and therefore have many meanings throughout the world (Haynes, 2013). Generally, butterflies symbolize metamorphosis, beauty, freedom, protection, resurrection, and the soul (Haynes, 2013). Cats and dogs also have many interpretations. Cats have deep roots in the Egyptian culture, which revered cats in connection to their Gods and saw cats as symbols of emotion, independence, self-reliance, and maternal nature (Hannah, 2006). However, cats were also considered to be symbols of “false-nature”, rage, and laziness (Hannah, 2006). Dogs are revered in a more domesticated fashion, and often seen as symbols of loyalty, guides, protectors, and healers (Hannah, 2006). Dogs are also considered to be symbols of betrayers, hunters, and thieves (Hannah, 2006). The inclusion of animals contributed to the overall narrative of the self-symbols created by participants.



Penzes et al. (2018) explored connections between formal elements and mental health. One connection of note was that variation within a composition generally related to higher adaptability, of which encompasses playfulness, exploration, and discovery (Penzes et al., 2018). Observations of participants' artwork indicated that 88.1% ( $n=37$ ) of participants had variation within their composition, which was determined by artwork having at least 2 images from more than one category. An example of high variation in a composition is seen in a piece created by a 55-year-old, Caucasian, female identified individual, cis-heterosexual individual (Figure 6). In regard to categories used, 97.6% ( $n=41$ ) of participants used images from the "landscapes" category (Table 1). There were also some images that were not used by any participants; 3 within the "animals" category, 4 within the "patterns" category, and 3 within the "people" category (Figure 7).

There were no significant thematic differences between groups within the artwork. However, it is notable that of the participants that had sparse compositions ( $n=6$ ), 5 of the participants identified as LGBTQ+. This suggests that those in the LGBTQ+ group may be more prone to low self-esteem than those in the cis-heterosexual group.

Overall, the collages made within this study were full, colorful compositions with various references to natural elements. Compositions indicated that participants embraced the self-expressive nature of the self-symbol directive and put effort into creating an image filled with meaning. The invitation to create a self-symbol elicited a variety of rich, abstract and representational imagery.

## **Implications**

Results and art analysis suggest that digital collage making can be an effective intervention in increasing positive affect, decreasing negative affect, and increasing self-efficacy

for individuals. The virtual dynamics of this study provide research to support the use of virtual art directives within therapy. For example, virtual directives allow for greater accessibility than typical, in-person interventions. In a post COVID-19 world, surges in positive COVID cases may create anxiety in people and hold them back from getting mental health help in person. Virtual therapy offers a safe alternative. Virtual therapy also allows for more accessibility for the LGBTQ+ community. It can be difficult for those in the LGBTQ+ community to find mental health professionals who are competent in LGBTQ+ care, therefore virtual options could help the community have greater access to mental health care. The findings of this study are also important in the field of art therapy, showing that digital art making can be an effective form of art therapy treatment, even as a short-term intervention.

### **Limitations**

There are several limitations to this study which should be noted and explored in future research. One limitation was the small sample size. Larger sample size would possibly accrue higher statistical power and be more generalizable. The sample was also not diverse, despite efforts to obtain participants from different locations. Another limitation was that there were occasional technical difficulties when corresponding with participants. While extra time was allotted in sessions to account for technical difficulties, the disruptions may have changed the mood of the participant or interrupted the flow of the session. If so, the difficulties may have impacted affect scores for the participants who were experiencing the technical issues.

Additionally, the study did not have a control group to ensure that the digital artmaking was the variable responsible for the changes found.

### **Future Research**

Future research should strive for a more diverse and larger sample to be more representative and to determine how the directive may impact different cultural groups. Additionally, since this study is an original design, future research could replicate the study with an inclusion of groups and be conducted in person. While this particular design is grounded in the extra need for mental health treatment after COVID-19, it would be beneficial to see if the procedure would continue to impact affect and self-efficacy in vivo. A replica of this study may also examine how the passing of time may influence the results by administering another post measure after a time delay to see if the artmaking has a lasting impact. Finally, it would be valuable to add an interview portion to the procedure to get richer insight from participants regarding their process and potential metaphors behind the selection of images.

Research has found that collage can be an effective, accessible intervention in mental health, especially for people who are homebound or difficulties getting to therapy (Keisari et al., 2022). It has also been reported that engaging in collage allows participants to distance themselves from the artmaking enough to be non-threatening and gain insight, while still connecting creatively with the activity (Keisari et al., 2022). However, as stated by Robbins (1994), it can be beneficial to explore different materials in art, given that different media elicits different responses. Future research may replicate this study with a comparison group utilizing different art materials, such as colored pencils or paint.

## **Conclusion**

In conclusion, the findings of this study demonstrate the use of digital art interventions, specifically digital collage, is a means to impact affect and self-efficacy in both the LGBTQ+ community and cis-heterosexual individuals. While both groups equally benefitted from the intervention, it is important to highlight the effectiveness this intervention had on the LGBTQ+

community and how it can be effective towards mental health care for minority stress. This study is important to the field of art therapy in that it integrates digital technology into art making, expands on the benefits of collage as a directive, and demonstrates an effective intervention for LGBTQ+ individuals.

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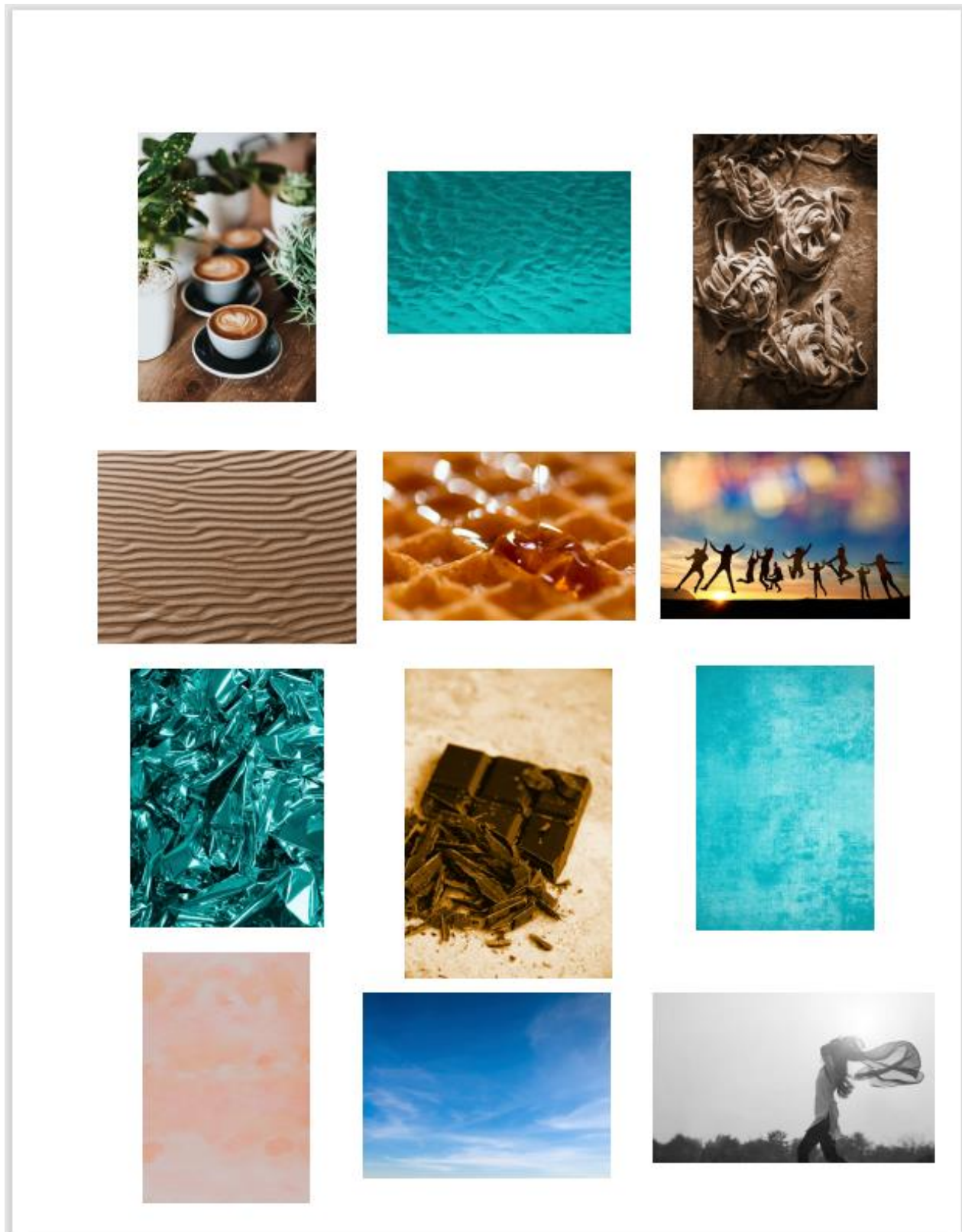
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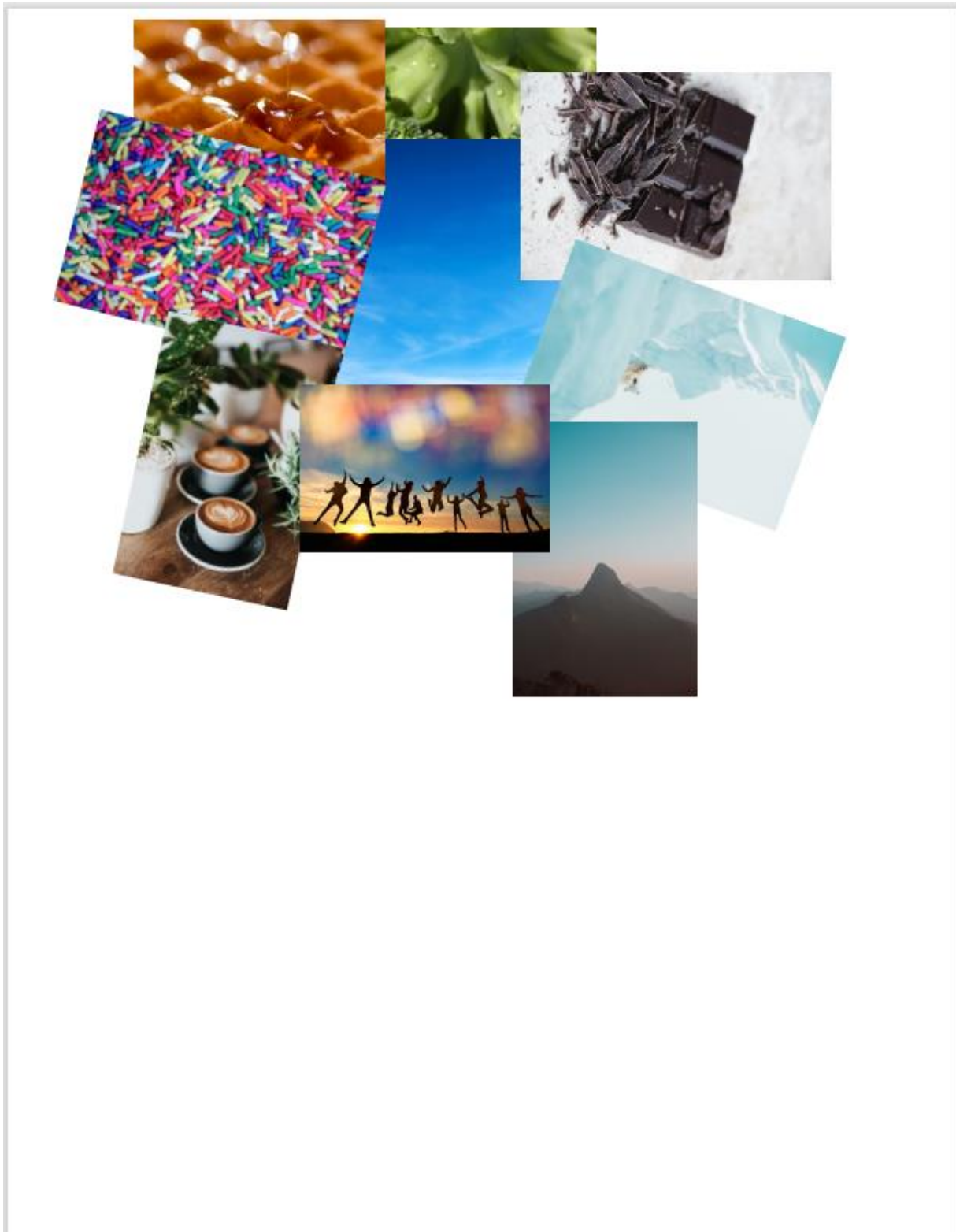
**Table 1***Frequency of Categories used by Participants*

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Landscapes	41	97.6%
Animals	35	83.3%
Food	33	78.6%
Patterns	28	66.7%
Colors	30	71.4%
People	28	66.7%

*Note:* Participants were allowed to pull images from all categories and were only given the parameters to use at least 3 images.

**Figure 1**

**Figure 2**

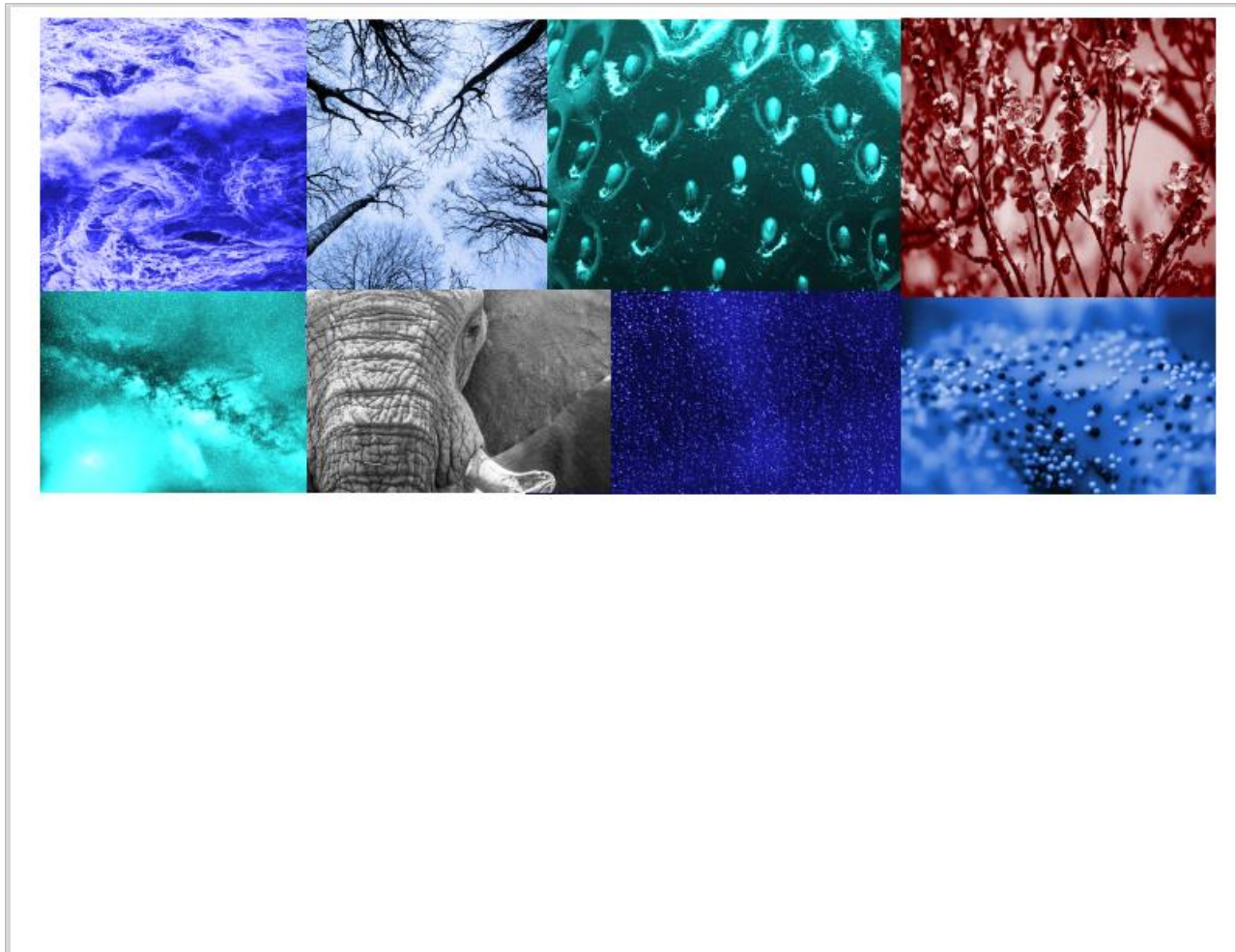


**Figure 3**

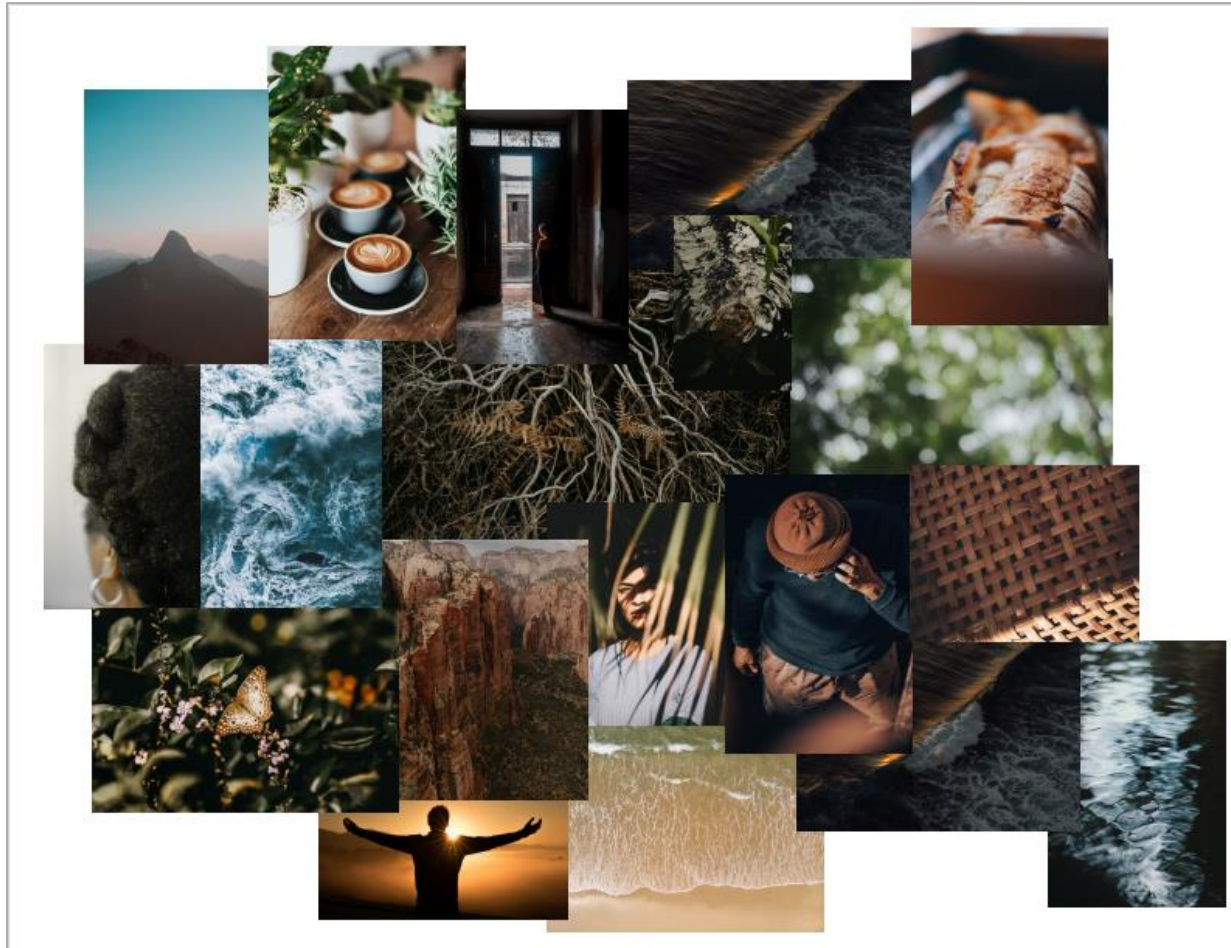




**Figure 4**

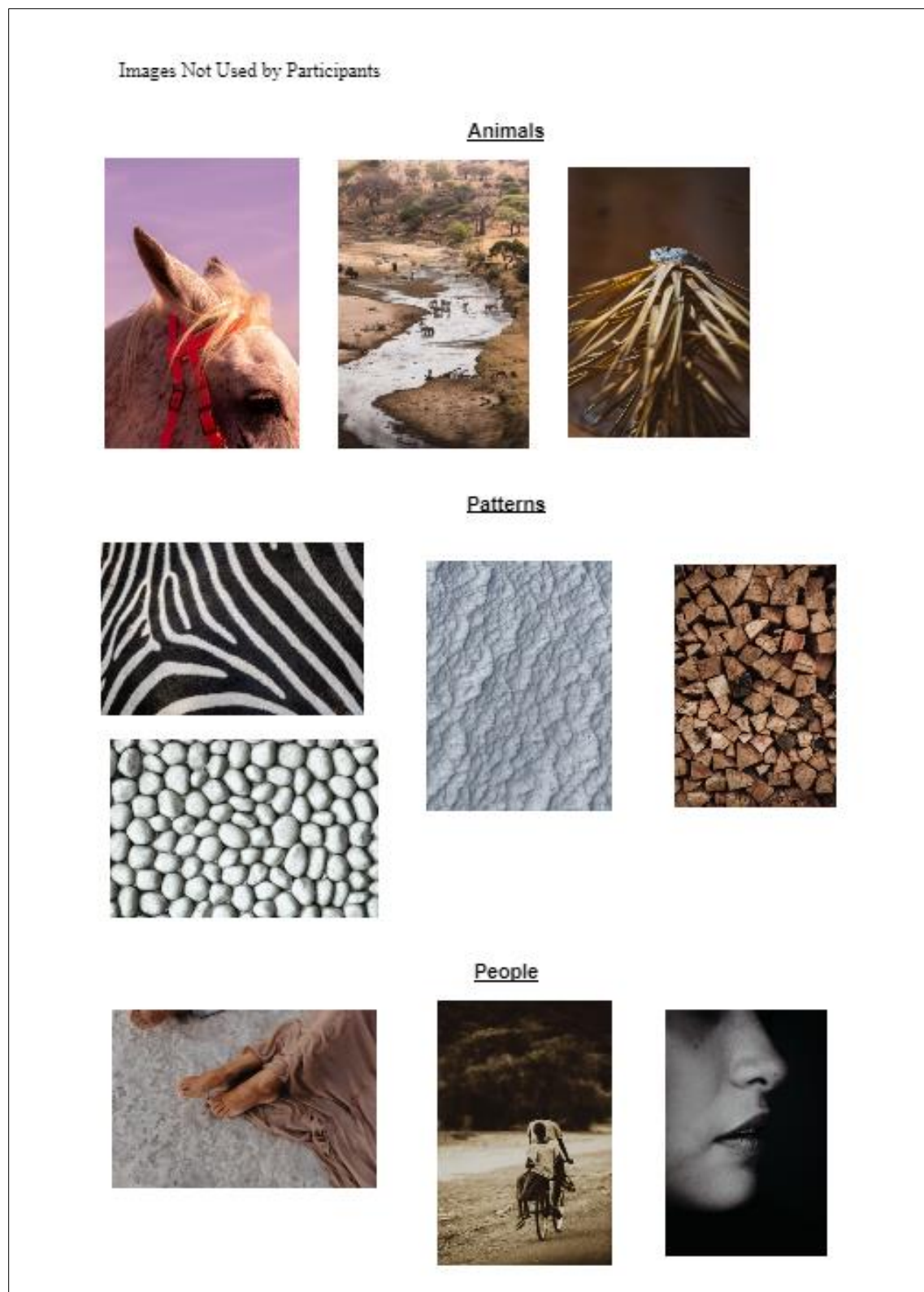


### Figure 5





A collage of various images including a black and white diamond pattern, a person silhouetted against a sunset, a tree branch, a purple textured square, a waffle, a chocolate bar, a galaxy, and a sand dune.

**Figure 7**



**Appendix A**

## Recruitment Flier



# Participants Needed

## for Art Therapy Research!

Participants will be asked to attend an all virtual, **one-on-one** session to complete a short survey packet and create artwork. The study should take between 45 and 60 minutes.

Ages: 18 and up

When: April 2022 by appointment

Where: Virtual via Zoom

Please contact Colleen Warner (researcher)

Email: [cmwarner@albertus.edu](mailto:cmwarner@albertus.edu)

Deadline: April 25<sup>th</sup>, 2022

## Appendix B

### Positive and Negative Affect Schedule (PANAS)

#### Instructions

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, that is, at the present moment.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Interested	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5
Afraid	1	2	3	4	5

**Appendix C****General Self-Efficacy Scale (GSES)**

Indicate the extent each statement applies to you.

	Not at all true	Hardly true	Moderately true	Exactly true
I can always manage to solve difficult problems if I try hard enough	1	2	3	4
If someone opposes me, I can find the means and ways to get what I want	1	2	3	4
It is easy for me to stick to my aims and accomplish my goals	1	2	3	4
I am confident that I could deal efficiently with unexpected events	1	2	3	4
Thanks to my resourcefulness, I know how to handle unforeseen situations	1	2	3	4
I can solve most problems if I invest the necessary effort	1	2	3	4
I can remain calm when facing difficulties because I can rely on my coping abilities	1	2	3	4
When I am confronted with a problem, I can usually find several solutions	1	2	3	4
If I am in trouble, I can usually think of a solution	1	2	3	4
I can usually handle whatever comes my way	1	2	3	4

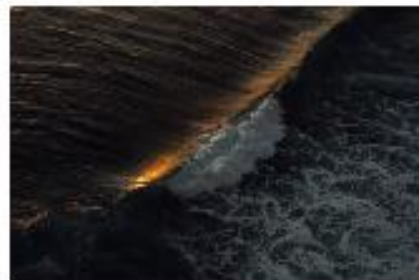


## Appendix D

### Digital Collage Image Bank

#### Landscapes

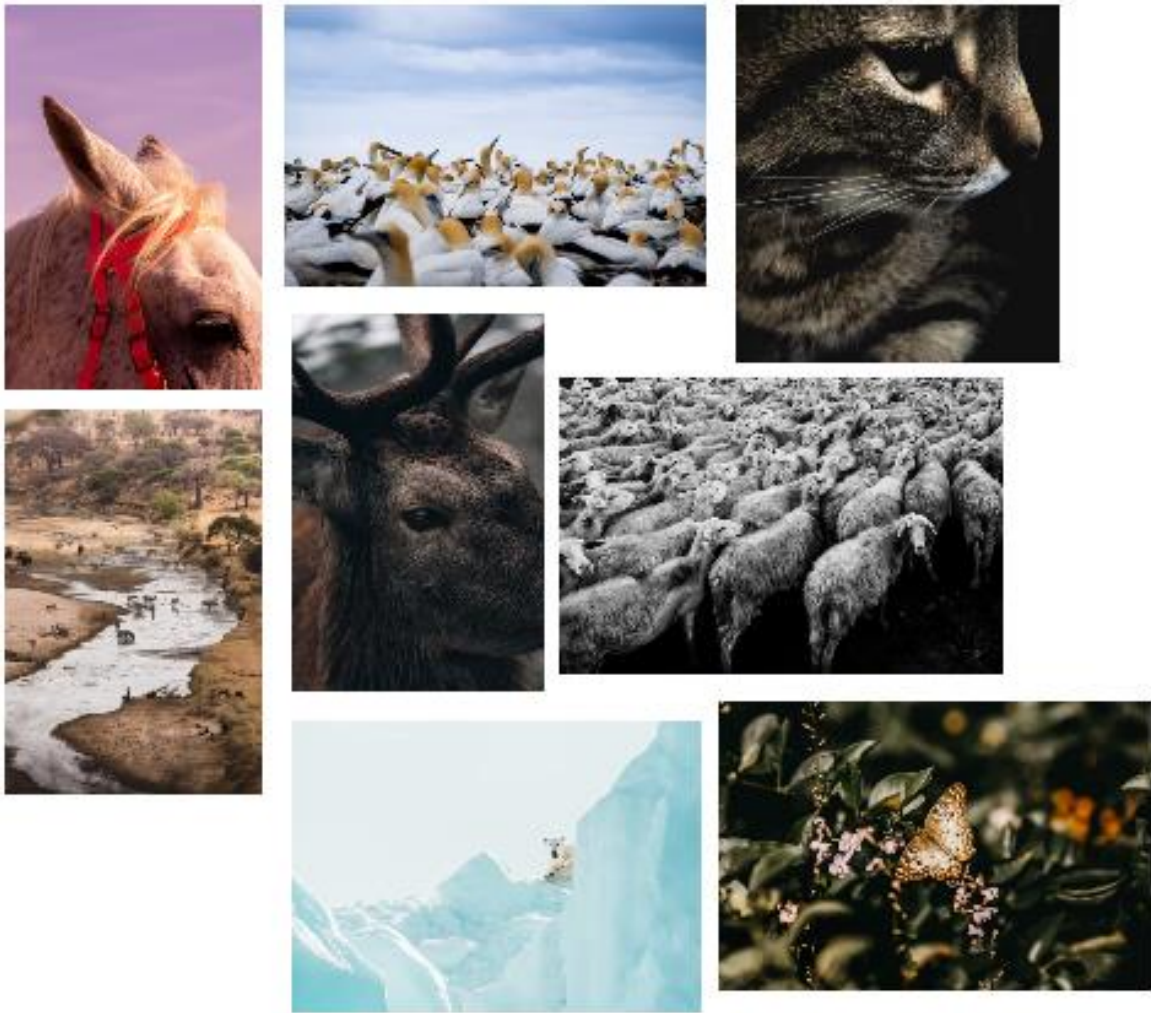






Animals







Food

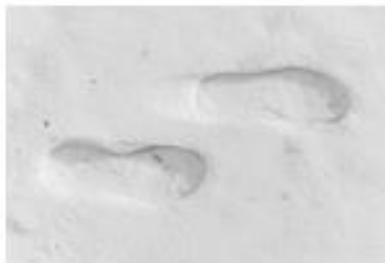
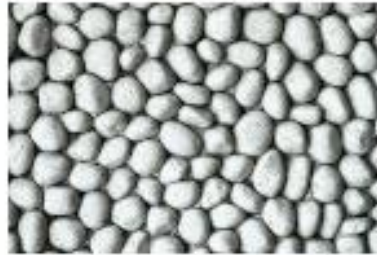






Patterns

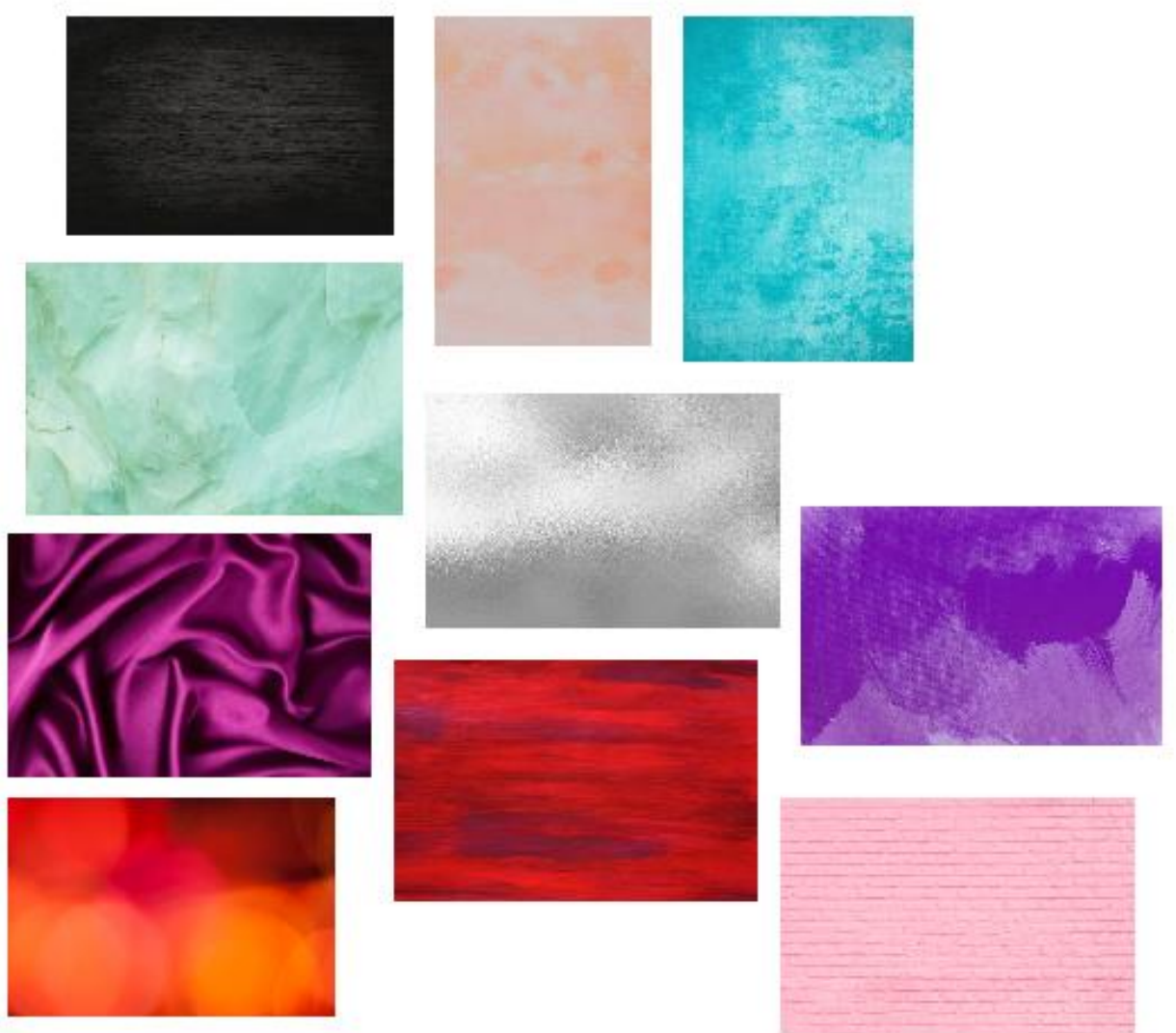






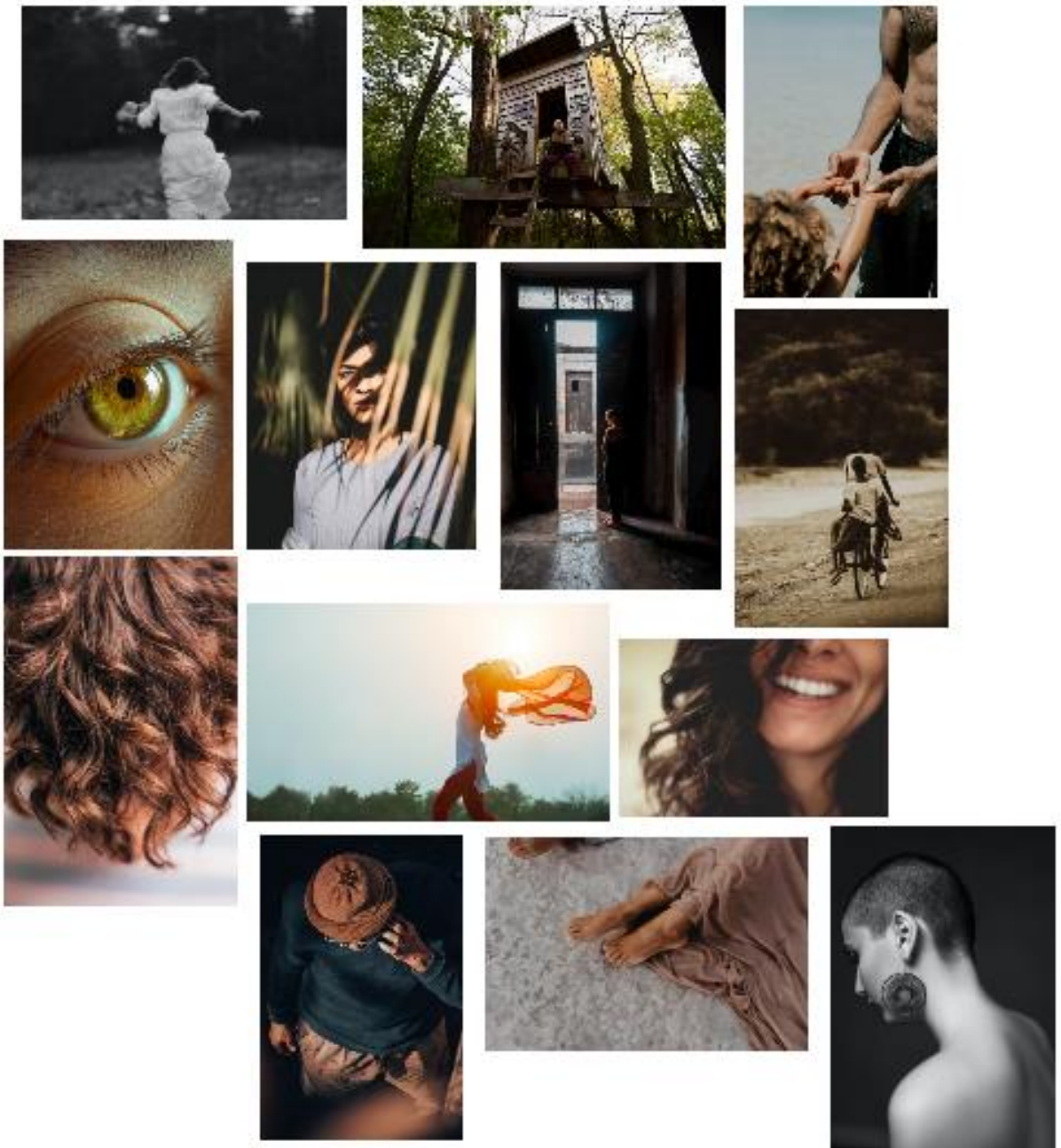
Colors







People





## Appendix E

### Informed Consent

#### **Informed Consent Form:**

This study is being conducted as part of the requirements for the completion of the Masters of Arts in Art Therapy and Counseling degree at Albertus Magnus College. The purpose of this study is to examine the relationship between art making, self-efficacy and feelings adults, specifically comparing members of the LGBTQ+ community and cisgender-heterosexual individuals.

During this study you will be asked to complete a demographic form and questionnaires and take part in an art making activity. Participation in this study is confidential and is expected to take approximately 45 minutes. Your artwork will remain private and confidential. The design of the study requires that the researcher hold onto the artwork which will be coded and not associated with your name or email address. If you want to keep a copy of your artwork you can download it onto your device at the end of the art making procedure. Please note that formal art abilities are not a factor in this study and will not be considered.

This is a voluntary study and if for any reason you would no longer like to participate, you are welcome to withdraw at any time. Potential anticipated risks include some discomfort from examining one's internal states or possible frustration with the art process. Benefits of this study may include enjoying art making, learning more about yourself, as well as contributing to the field of art therapy. The Institutional Review Board (IRB) at Albertus Magnus College has approved this study.

If you have any questions or concerns about this study, you may contact the following individuals:

The Investigator:  
Colleen Warner  
[cwarner@albertus.edu](mailto:cwarner@albertus.edu)

Art Therapy Advisor:  
Hope Boeve, M.A., ATR-BC, LCAT  
[hboeve@albertus.edu](mailto:hboeve@albertus.edu)

Psychology Advisor:  
Bonnie Pepper, Psy.D.  
[bpepper@albertus.edu](mailto:bpepper@albertus.edu)

Or:  
Joshua Abreu, Ph.D., Chair of IRB  
[jabreu1@albertus.edu](mailto:jabreu1@albertus.edu)

Your signature below indicates that you are 18 years old or older, have read and understand the description of the study, have had all your questions addressed, and are willing to participate.

Name (print): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ I received a copy of this form for my record

**Appendix F**

## Demographic Form

## Demographics

- 1) **How old are you?** \_\_\_\_\_
- 2) **How do you currently identify your gender?**
  - \_\_\_ Man
  - \_\_\_ Woman
  - \_\_\_ Non-Binary/Genderqueer
  - \_\_\_ Not listed: \_\_\_\_\_
  - \_\_\_ Prefer not to respond
- 3) **Do you identify as transgender?**
  - \_\_\_ Yes
  - \_\_\_ No
  - \_\_\_ Unsure
- 4) **What is your sexual orientation?**
  - \_\_\_ Lesbian/Gay
  - \_\_\_ Pansexual
  - \_\_\_ Bisexual
  - \_\_\_ Questioning
  - \_\_\_ Heterosexual
  - \_\_\_ Not listed: \_\_\_\_\_
  - \_\_\_ Prefer not to respond
- 5) **Please specify the race/ethnicity you most identify with:**
  - \_\_\_ African American/Black
  - \_\_\_ Asian/ Pacific Islander
  - \_\_\_ Caucasian/White
  - \_\_\_ Native American or American Indian
  - \_\_\_ Not listed: \_\_\_\_\_
  - \_\_\_ Prefer not to respond
- 6) **Please specify which ethnicity you most identify with:**
  - \_\_\_ Hispanic/Latinx
  - \_\_\_ Non-Hispanic/Latinx

## Appendix G

### Debriefing Form

#### Debriefing Form: Affect, Self-Efficacy and Adults

The purpose of this study is to examine the impact of art making on positive and negative affect, and self-efficacy among adults. Research has suggested that art making may increase feelings of self-efficacy as well as positive affect.

The hypothesis of this study is that engaging in collage will positively impact self-efficacy and positive affect, and have an inverse impact for negative affect in adult individuals. It is also hypothesized that there will be a greater impact for participants who identify in the LGBTQ+ community versus those who are cis-heterosexual.

If you wish to learn more information about this topic, here are some resources:

- Dean, M. (2016). Using art media in psychotherapy. Routledge.
- Jang, H., Woo, H., & Lee I. (2019). Effects of self-compassion and social support on lesbian, gay, and bisexual college students' positive identity and career decision-making. *Journal of Counseling & Development*, 98(1), 402- 411. <http://dx.doi.org/10.1002/jcad.12342>

In the event you would like to know the results of this study, please provide your email address to the researchers. Please note that results can only be provided in aggregates.

Researcher Contact Information: Colleen Warner: [cmwarner@albertus.edu](mailto:cmwarner@albertus.edu)

*Thank you for your participation in this study!*

**Appendix H****Image Release Form****Image Release form:**

You are being asked consent for your artwork to be saved as a deidentified PDF and used for educational and professional purposes. Please note that the artwork that you create during this study will remain confidential. The purpose of this would be to for others to learn more about art therapy and improve therapeutic practices. If you agree, pictures of your artwork will be presented, but you will not be discussed by name or specific identifying details. If you agree, your artwork would be used to further awareness of art therapy.

**Please check any that apply:**

- ☐ I agree that photographed images of my artwork can be used for educational purposes including publications, presentations at professional conferences, or for training purposes.
- ☐ I do not give permission for my artwork to be photographed for any of the above purposes.

**I hereby give consent as noted above for the use of my artwork.**

Name (print): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ I received a copy of this form for my record

**\*PLEASE NOTE:** If an image is used, your name and all identifying information will be concealed to ensure the protection of your identity. You may withdraw your permission in writing at any time. Please keep in mind that if you decide to withdraw your consent after agreeing to publication or presentation, we cannot guarantee that the images of your work have not been recorded/copied elsewhere.

## **Appendix I**

### Art Analysis Questions

#### **Art Analysis Questions:**

1. How much of the space was taken up by images? Did the participant leave any blank spaces?
2. Does there appear to be a color scheme to the artwork? If so, what colors?
3. What categories of images were used?
4. Was there editing of photos (specifically layering and altering transparency)? If so, to what degree?
5. What sort of recurring symbols (themes/imagery) come up in the artwork? (Consider individual artwork and artwork of the participants as a whole)